

Title (en)  
LIVE VACCINE COMPRISING MUTANT MSBB AND/OR HTRB GENES

Title (de)  
LEBENDIMPFSTOFFE MIT MUTIERTEM MSBB UND/ODER HTRB GEN

Title (fr)  
VACCIN VIVANT COMPRENANT GENES MUTANTS MSBB ET/OU HTRB

Publication  
**EP 0973911 A1 20000126 (EN)**

Application  
**EP 98902105 A 19980130**

Priority  

- GB 9800291 W 19980130
- GB 9701886 A 19970130
- GB 9701887 A 19970130

Abstract (en)  
[origin: WO9833923A1] Nucleic acid for a mutant msbB or htrB gene derivable from Salmonella which results in loss of an msbB or htrB encoded protein, respectively, or loss of function of the protein, which in turn results in a lipid A molecule having reduced toxicity.

IPC 1-7  
**A61K 39/02**

IPC 8 full level  
**C07K 14/255** (2006.01); **A61K 39/00** (2006.01)

CPC (source: EP US)  
**C07K 14/255** (2013.01 - EP); **C12N 1/205** (2021.05 - EP); **A61K 39/00** (2013.01 - EP US); **C12R 2001/42** (2021.05 - EP)

Cited by  
US11471497B1; US10087451B2; US9878023B1; US11219671B1; US10364435B1; US10954521B1; US9737592B1; US10828350B1; US11180535B1; US10501746B1; US10973908B1; US11406702B1; US11827890B1; US9200289B1; US9657085B1; US10590185B1; US11485773B1; US9616114B1; US10188722B2; US10449237B1; US10729731B1; US10828356B1; US11633435B1; US11813295B1

Designated contracting state (EPC)  
AT BE CH DE DK ES FI FR GB GR IE IT LI NL PT SE

DOCDB simple family (publication)  
**WO 9833923 A1 19980806**; AU 5873498 A 19980825; EP 0973911 A1 20000126

DOCDB simple family (application)  
**GB 9800291 W 19980130**; AU 5873498 A 19980130; EP 98902105 A 19980130